

Application No.: R.12-03-014
Exhibit No.: ISO-4
Witness: Robert Sparks

Order Instituting Rulemaking to Integrate
and Refine Procurement Policies and
Consider Long-Term Procurement Plans.

Rulemaking 12-03-014

A.11.05-023

*Application of San Diego Gas & Electric Company (U 902 E) for Authority to Enter into
Purchase Power Tolling Agreements with Escondido Energy Center, Pio Pico Energy
Center and Quail Brush Power*

Supplemental Testimony of Robert Sparks on Behalf of the
California Independent System Operator Corporation
April 6, 2012

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Application 11-05-023

**SUPPLEMENTAL TESTIMONY OF ROBERT SPARKS
ON BEHALF OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR
CORPORATION**

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A.11-05-023

1 overlapping with an outage of the Otay Mesa combined-cycle power plant (G-1/N-
2 2). The limiting constraint for this contingency is the South of SONGS Separation
3 Scheme. With this change to the WECC criterion, the most limiting contingency for
4 San Diego sub-area is the loss of Imperial Valley-Suncrest 500 kV line followed by
5 the loss of ECO-Miguel 500 kV line (N-1-1).

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7 The table below shows the difference in study results between the two different
8 limiting contingency scenarios.

LCR Area	Contingency	Limiting Constraint	Traject(MW)	Env(MW)	ISO Base (MW)	Time(MW)
San Diego	G-1/N-2 (Assuming load shed)	8000 Amp limit on P44	LCR = 2,883** OTC = 531* - 950	LCR = 2,854** OTC = 231* - 650	LCR = 2,864** OTC = 231* - 650	LCR = 2,856** OTC = 421* - 840
		7800 Amp limit on P44 (2.5% margin)	LCR = 2,939** OTC = 520* - 939	LCR = 2,922** OTC = 299* - 718	LCR = 2,930** OTC = 299* - 718	LCR = 2,911** OTC = 470* - 889
San Diego	N-1-1 (No load shed)	8000 Amp limit on P44	LCR = 2,680 OTC = 318* - 737	LCR = 2,625 OTC = 0* - 402	LCR = 2,669 OTC = 218* - 637	LCR = 2,633 OTC = 201* - 620
		7800 Amp limit on P44 (2.5% margin)	LCR = 2,735 OTC = 373* - 792	LCR = 2,702 OTC = 60* - 479	LCR = 2,694 OTC = 243* - 662	LCR = 2,691 OTC = 260* - 679
		Voltage Collapse (accounting for 2.5% margin)	LCR = 2,646 OTC = 311* - 730	LCR = 2,524 OTC = 0* - 300	LCR = 2,663 OTC = 211* - 630	LCR = 2,553 OTC = 121* - 540

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12 * Lower OTC range value corresponds to the use of SDG&E-proposed generation
13 included in the Long-Term Procurement Plan. The numbers in the table identified
14 as OTC refer to an incremental local capacity need in the San Diego area driven by
15 the loss of OTC generation in the San Diego area. This need could be met by
16 repowering the existing OTC generation or by other new generation that is
17 connected to an electrically equivalent location.

18 ** Load curtailment of approximately 370 MW was simulated to achieve stability
19 under G-1/N-2 contingency.
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